# Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

In the Matter of	)	
Procedures to Govern the Use of Satellite Earth	)	
Stations on Board Vessels in the 5925-6425	)	IB Docket No. 02-10
MHz/3700-4200 MHz Bands and 14.0-14.5	)	
GHZ/11.7-12.2 GHz Bands	)	

To: The Commission

### COMMENTS OF PANAMSAT CORPORATION

PanAmSat Corporation ("PanAmSat") hereby submits these comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM") concerning a regulatory framework for licensing the operation of earth stations on board vessels ("ESVs") in fixed-satellite service ("FSS") networks in the 5925-6425 MHz/3700-4200 MHz ("C-Band") and 14.0-14.5 GHz/11.7-12.2 GHz ("Ku-Band") frequencies.

PanAmSat is generally supportive of the proposals set forth in the NPRM, with one important exception. As discussed below, PanAmSat is of the view that coordinated C-band ESVs should be authorized to operate on a primary basis and not on a non-harmful interference basis ("NIB") as the Commission proposes.

PanAmSat also supports the proposal that ESVs be generally licensed as Kuband VSATs or as CSATs, as applicable. However, ESVs that do not meet the conditions for routine licensing proposed by the Commission should not be allowed to apply for ALSAT authority.

### I. INTRODUCTION

PanAmSat owns and operates a global satellite system comprised of geostationary fixed satellite service space stations operating on C-band and Ku-band frequencies. A leader in the commercial FSS satellite industry, PanAmSat created the first private international satellite distribution network and currently reaches 98% of the world's population with its services. PanAmSat has a dual interest in the regulatory framework for licensing the operation of ESVs, because these earth stations present an opportunity for making additional use of PanAmSat's fleet but also are a potential source of interference from adjacent satellites. While interested in a framework that is favorable to the development of the services associated with ESVs, therefore, PanAmSat also wants to ensure that deployment of ESVs does not increase the interference levels currently observed between neighboring satellite networks.

#### II. DISCUSSION

# A. After Successful Coordination with FS Operators, C-Band ESVs Should Be Authorized to Operate on a Primary Basis.

The NPRM offers two possibilities for the operation of C-band ESVs with respect to terrestrial FS systems: operation on a non-coordinated basis or operation on a coordinated basis. PanAmSat believes that if the Commission adopts the "coordination approach," then C-band ESVs should be authorized to operate on a primary basis. In PanAmSat's view, if coordination with terrestrial FS systems is successfully completed, there is no reason for relegating ESVs to secondary status.

PanAmSat notes that, as reflected in proposed footnote NGxxx (NPRM,¶ 46), the Commission wants to ensure that C-band ESV operation will not "impose constraints on the operation or development of fixed stations that operate in these bands". PanAmSat is of the view that coordination will eliminate any "constraints on the operation" of fixed stations. With respect to possible "constraints on the development of fixed stations," a more balanced solution could be achieved by still giving primary status to coordinated C-band ESVs but limiting the license term to a shorter duration than the fifteen years proposed for Ku-band ESVs.

### B. ESV Operation in the 14.0-14.5 GHz Portion of the Ku-Band

PanAmSat supports the Commission proposal "to permit blanket licensing of ESV operations in the 14.0-14.5 GHz portion of the Ku-band on the same basis as Ku-band VSAT systems" (NPRM,  $\P$  49). In this respect, PanAmSat supports in general the language proposed for a new \$25.134(a)(3).

However, PanAmSat is of the view that ESVs that do not qualify for routine processing should not be allowed to apply for ALSAT authority. As stated in §25.134(b), in the case of ESVs that do not qualify for routine processing because of higher power density, a detailed interference analysis is required and applicants "shall provide proof by affidavit that all potentially affected parties acknowledge and do not object" to their operation. *See also* Section 25.209(f) ("non-conforming" earth stations will not be granted absent "a finding by the Commission that unacceptable levels of interference will not be caused under conditions of uniform 2° orbital spacings").

Since in all practical situations, ESV operation will be limited to a small number of satellites, it would be an unnecessary burden for the applicant and for the potentially affected satellite operators to go through this exercise for ALSAT. Moreover, granting ALSAT status to non-conforming ESVs is inconsistent with the requirement that non-conforming operations be evaluated on a case-by-case basis. Once a non-conforming ESV has ALSAT authority, it will automatically be licensed to communicate with

satellites that are added to the ALSAT universe, such as U.S.-licensed replacement satellites and satellites that the Commission adds to the Permitted Space Station List, with no evaluation having been made as to whether the non-conforming ESVs will cause "unacceptable levels of interference" to these additional satellites "under conditions of uniform 2° orbital spacings."

Therefore, PanAmSat proposes that the new §25.134(a)(3) be amended as follows:

§25.134 Licensing provisions of Very Small Aperture Terminal (VSAT), C-band Small Aperture Terminal (CSAT), and Satellite Earth Stations on Board Vessels (ESV) networks.

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(a)(3) ESV networks operating in the 12/14 GHz frequency band. Applications for ESV networks in the Ku-bands that meet the requirements of Section 25.134 (a)(1), that employ antennas that are 1.2 meters or larger in diameter, and have ESV antenna pointing accuracies of +/-0.2 degrees or better will be routinely processed. The use of smaller antennas or non-consistent power levels will require the filing of an initial lead application (§25.115(c)(4)) that includes all technical analyses required to demonstrate that unacceptable interference will not be caused to any affected adjacent satellite operators by the operation of the non-conforming earth station as described in 25.134(b) for VSATs. Applications not qualifying for routine processing are limited to individual satellites and cannot be granted for ALSAT. The licenses shall be issued for ESV operations within 125 km of the United States coastline. The hub earth station licensee shall be responsible for all ESV compliance in its network including foreign-flagged ships.

## C. ESV Operation in the 5.925-6.425 GHz Portion of the C-Band

As discussed in B above for Ku-band ESV operation, PanAmSat is of the view that C-band ESVs that do not qualify for routine processing, as defined in new \$25.134(a)(4), should not be allowed to apply for ALSAT authority. As stated in new \$25.134(a)(4), in the case of ESVs that do not qualify for routine processing the application has to include a technical analyses showing that the operation of the nonconforming earth station will not cause unacceptable interference to any potentially affected satellite operator. As noted above, in practice this does not seem to be compatible with ALSAT authority. Therefore, PanAmSat proposes that the portion of new \$25.134(a)(4) addressing this matter be amended as follows:

§25.134 Licensing provisions of Very Small Aperture Terminal (VSAT), C-band Small Aperture Terminal (CSAT), and Satellite Earth Stations on Board Vessels (ESV) networks.

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(a)(4) ESV networks operating in the 4/6 GHz frequency band. All ESV network applications or applications for hub earth station operations will be routinely processed provided the network employs antennas on board ships with a minimum of 300 gross tonnage that are 4.5 meters or larger in diameter, that are consistent with §25.209, that the antennas would operate with power levels that are consistent with §825.211(d) and 25.212(d), that the antennas would have pointing accuracies of +/-0.2 degrees or better, and where frequency coordination, if necessary, has been satisfactorily completed. The use of smaller antennas or other power levels requires the filing of an initial lead application (§25.115(c)(4)) that includes all technical analyses required to demonstrate that unacceptable interference will not be caused to any all affected adjacent satellite operators by the operation of the non-conforming earth station. Applications not qualifying for routine processing are limited to individual satellites and cannot be granted for ALSAT. ...

The latter portion of §25.134(a)(4), which has not been reproduced above, would also have to be modified in order to take account of the primary status proposed here for C-band ESVs (see discussion in A above). However, PanAmSat is not proposing any specific edits in this respect at this point in time.

Respectfully submitted,

PANAMSAT CORPORATION

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